

TSSG/RED/ATB-025-70

22 January 1970

## MEMORANDUM FOR THE RECORD

SUBJECT: Possible Use of PFR-3 Equipment for Image Manipulation Experiments

1. On 15 January 1970, [ ] NPIC/TSSG/RED/ATB, and [ ] O/ORD/DD/S&T, met with [ ] and [ ] Analysis Division/ORD/DD/S&T, to discuss the possibility of using the Programmable Film Reader/Recorder, Number 3 (PFR-3) for image manipulation experiments. [ ] is Chief of the Intelligence Processing Research and Development (IPRD) facility, Analysis Division, where the PFR-3 is located. [ ] is the principal investigator of this unit.

2. At present, [ ] and [ ] are using aerial scenes digitized on the Mann Microdensitometer at NPIC. These 7-track tapes are then converted to 9-track mode on the ORD 360/50 computer before any processing of data. The current output, which is totally impracticable, is a computer printout (128 x 128) in the form of digits 0 to 9. These digits must be "contoured" by hand to obtain a recognizable pattern. Playing back the processed tape on the PFR-3 console is where the greatest benefit would result. The PFR-3 has a rectangular CRT output which currently has only eight gray levels. However, [ ] indicated that this may be expanded to 64 gray levels at a minimum cost [ ] to Analysis Division. This equipment would serve nicely as an "interim" replacement until NPIC obtains the IDT computer display from [ ] later this year.

3. The PFR-3 also has the capability of scanning film and digitizing it on 7-track tape. However, the smallest scanning aperture is 25 $\mu$ , compared to the 2 $\mu$  scanning aperture which has been used on the Mann Microdensitometer. Scanning apertures of 5 $\mu$  and 10 $\mu$  have also been used on the Mann.

4. [ ] is presently concluding some work for other Agency components. He indicated a willingness to provide assistance in any image manipulation experiments.

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NPIC/TSSG/RED/ATB, [ ]

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